Winter 2012

Lake County Engineer's

Centerline News

Your Destination – Our Priority

Best Wishes in your **Retirement**

Joe Shoop
Traffic Tech II, 31 Years

In Memory of

RON HETMAN
May 25, 1954 - July 27, 2012
14 years of service with the Lake County Engineer

2012 Employee Anniversaries

35 YEARS	
Dave Tirpak	11/10/1977
30 YEARS	
Bruce Gurley	11/22/1982
15 YEARS	
Kirk Dimmick	01/27/1997
Wes Edwards	09/01/1997
10 YEARS	
Andy Assel	05/20/2002
Dan Bukvic	05/20/2002
Ryan Exum	07/19/2002
Ed Lawson	11/18/2002
Chris Bernard	07/08/2002
Peggy Gall	06/03/2002
Nancy Stanziale	07/01/2002
5 YEARS	
Matthew Arnold	06/11/2007
Jeff Oberstar	05/29/2007
Chad Sines	11/26/2007
Mike Ponchin	01/22/2007
Tom Trivisonno	09/04/2007

SUB ZERO MISSION

The Sub Zero Mission is a privately held, fully accredited charity based in Lake County, Ohio. Their Mission is to prevent freezing and injury caused by extreme weather exposure to the homeless & financially destitute Americans, with special focus on military veterans.

ON A COLD, WINTER NIGHT, A SLEEPING BAG CAN SAVE A LIFE.

We are collecting new & gently used **sleeping bags and blankets** through December 17th.

Hats, coats, gloves & other warming items are also appreciated.

Please see Bri with any questions or visit www.subzeromission.org to learn more.

In this Issue…

2012 Construction Activity

Most of the construction activity in 2012 was centered on general maintenance and repair of things we didn't get done in 2011 due to the excessive rain. The only bridge project this year was the replacement of the Leroy-Thompson Road Bridge in Leroy Township. The project cost $288,000; 80% of which came from CEAO Federal Allocation Funds. The contractor, Huffman Equipment Rental, completed the work in just 6 weeks. They did a great job.

The County received a $129,000 grant from ODNR to use in the improvements of Blackbrook and Bacon Roads with an experimental rubber tire/asphalt mixture. OPWC also awarded the County $344,706 in grant funds. The total project cost was $584,249. The experimental mixture went down well and we are happy with the results.

James R. Gills, P.E., P.S.
Lake County Engineer

"The experimental mixture went down well and we are happy with the results."

Vrooman Road Projects

In the spring, the Engineer's office met with some of the stakeholders from the 5-Points area in Leroy Township regarding the proposed roundabout. The businesses had concerns regarding our initial design layout. It was going to create some hardships of ingress and egress for delivery trucks and certain other customers of the businesses.

The Engineer's Office and the consultant determined there was a need to adjust the location of the roundabout to meet the needs of local businesses. The consultant has recently completed revising the plans and we are moving forward again. The revised plans have been submitted to ODOT District 12 for review and approval.

O.R. Colon is completing the appraisals and shortly we will be negotiating the right-of-way talks. We hope to be able to advertize for bids in late December with construction of Lake County's first roundabout in the spring.

Our bridge project is moving right along. We have come to an agreement with Scenic Rivers on the location of the pedestrian bridge for Lake Metroparks, we have completed a bat survey (no bats were found), and a mussel survey. While a large number of mussels were located, it looks like they are sufficiently far enough downstream not to be a problem during construction.

The State has been actively dealing with the Indian Tribes and we should have sign-off soon. The Consultant, the County, and ODOT have agreed to a design contract amount for the bridge portion of the project. Design should start soon.

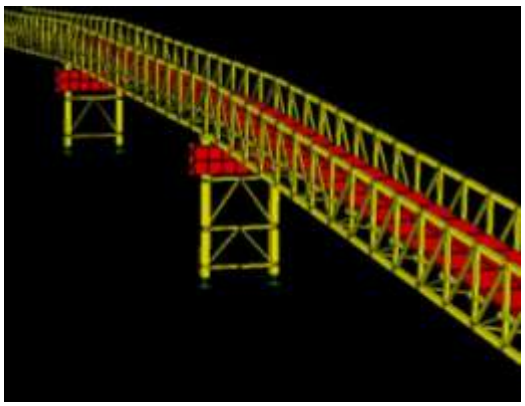
We have adjusted and chosen a consultant for the roadway portion of the project which will terminate at I-90. The scope and contract amount has been negotiated and design should start very soon.

Vrooman Road between I-90 and the new roundabout will be resurfaced in 2017. We have secured 80% federal funding for the project.

Last, but not least, ODOT will re-deck the existing Vrooman Road bridge over I-90 in 2015.

AutoCAD® Changes are Coming

Jeffrey Gertz, AutoCAD® Manager



We have reached a point within the AutoCAD® Department that has triggered a need to reevaluate our current software for plan development. This position is fueled by two factors facing us in the near future. The first and foremost issue is the retirement of our current software. This retirement has "cut us off at the knees" in regard to software upgrades, training, and technical support. The second factor involves the constant upgrading of our computer's operating systems. Our current AutoCAD® software is supported by 32 bit operating systems only, and soon the 64 bit systems will be the norm.

The business practices of the AutoCAD® giants are clear; keep improving (changing) to keep selling. This is not a unique situation; all developers of application software apply this to some extent. Land Development has reached its technological limit therefore it is no longer profitable. Unfortunately, vast amounts of time and effort have gone into developing our plan production process only to see it jeopardized.

There will come a time when all operating systems available will have the 64 bit processors. We can only hold on for so long until this becomes a reality. The industry is continually changing and it is our responsibility to maintain standards in the manner we see fit. In researching alternate AutoCAD® software applications, cost and companies are not the main concerns - maybe they should be, but they are not. Our main concerns are as follows:

1. Compatibility with our current process relating to user comfort, prototype application, and format.
2. Supports our survey hardware and software relating to data collection.
3. Supports our current computer hardware and software requirements.

There is no seamless transition from one software application to another however, a major factor is the ability to transfer and apply as much information and data as possible. File format and compatibility aids to the comfort level of the user and therefore allows a more comfortable transition. Another key factor in changing application software is support of our existing computer and survey capabilities.

Extensive research was performed in determining potential software application purchases. This included conversations and demonstrations with software companies, website reviews, and input from other County and State offices. Using the three main factors discussed above, the search was narrowed to five (5) companies with the highest potential. They are as follows:

- Bentley-Microstation, GeoPak
- Carlson-Civil Suite
- Autodesk-Civil 3D
- Softree-RoadEng
- AutoDesSys-FormZ

There's no reason to bore you with the compatibility analysis, advantages and disadvantages, & review criteria of these software products (a copy is available upon request). A cost analysis for all software applications considered is shown in the table on the next page.

AutoCAD® Changes (Continued)

AutoCAD® Upgrade Software Cost Analysis							
Company Name	Software Name	Software Cost	Annual Subscription	Sub Total	Training and Support	Installation and Set up	Total Cost
Bentley	Power GeoPak V8i	$8,495.00	$1,650.00	$50,725.00	$8,000.00	$3,000.00	**$61,725.00**
Bentley	Power Civil V8i	$4,995.00	$1,125.00	$30,600.00	$6,000.00	$3,000.00	**$39,600.00**
Carlson	Civil Suite 2012	$3,954.50	$0.00	$19,772.50	$9,000.00	$1,000.00	**$29,772.50**
Autodesk	Civil 3D	$3,082.87	$945.29	$20,140.80	$11,667.60	$12,320.00	**$44,128.40**
Softree	RoadEng	$1,352.00	$400.00	$8,760.00	$0.00	$0.00	**$8,760.00**
AutoDesSys	Form-Z	$1,145.40	$0.00	$5,727.00	$6,060.00	$0.00	**$11,787.00**

Three of the five companies provide a product that satisfies the main criteria of user compatibility, computer requirements, and survey data collection standards. Although none are a perfect fit, they at least meet the criteria and provide the least resistance to transition and migration of data. A transition from one format to another is not only time consuming but costly.

It has been determined that Carlson Civil Suite will provide the best transition from LDD for both the AutoCAD® user and the Survey Department. The software best mimics LDD regarding format and functionality and provides the best platform for migration of data. Carlson Civil Suite 2012 includes Civil, Survey, Hydrology, and GIS capabilities available in stand alone or network licenses. Civil Suite can run either with an existing AutoCAD® application or with the built in platform software Intellicad. Carlson is compatible with our current data collection hardware and software and requires similar prototype features as it relates to data collection.

Carlson software functionality is similar to LDD however, alignments, profiles, and cross sections are created in another format; this will require AutoCAD® users to attend training. Carlson provides live web training and on- site training for up to 12 people. A subscription training program includes live classroom web training, on demand library training videos, and 24/7 support.

A 30 day demo version of Carlson Civil Suite was downloaded and put through its paces to verify key elements that are not clearly defined in conversation alone. With the current workload and fiscal restraints present, it has been determined that purchase of new software will take place in April 2013. This will allow for completion of most current projects in LDD and 2012 Construction inspection season to pass. LDD will stay on the computers until all midstream projects are completed. Training sessions will be scheduled for May 2013 and with technical support available, this will allow users to start new projects with the new software. Once all LDD projects are completed, the old software will be removed from the system. Users will be well informed of all transition activities.

SLOW DOWN MOVE OVER

by Traci Salkiewicz, P.E.
Supervisor, Sign Shop/Traffic Engineer

When you see flashing lights on a police car, an ambulance, a tow truck or an ODOT/County work vehicle that is parked on the side of the highway, do you move over or slow down? If not, you should.

Ohio's "Move Over" law which was enacted in 2009 requires that drivers of vehicles should do either of the following when approaching a stationary public safety vehicle, an emergency vehicle, or a road service vehicle:

- If there are at least two lanes traveling in the same direction, the driver of the vehicle should use caution and move into the adjacent lane of travel away from the stationary public safety vehicle, an emergency vehicle or a road service vehicle. The driver should account for regard to the road, weather and traffic conditions and only do so if possible.

- If not possible to do so safely or if there are not two or more lanes of travel in the same direction, the driver shall reduce speed and proceed through the area with caution.

Failure to comply with this law could result in a driver being charged with a minor misdemeanor.

Remember, by taking the few extra seconds necessary to move over or slow down, you are helping to keep all workers on our highway system safe.

Anti-Icing Program

by Ted Galuschik, P.E.
Maintenance/Highway Engineer

Have you ever wondered what and why there are white streaks on various roadways throughout the northeast Ohio area before a winter storm? The white streaks are part of an anti-icing program. ODOT has been doing this type of winter maintenance on their roads for awhile. Anti-icing is a winter maintenance activity that helps prevent a bond of snow and ice on the pavement. The purpose is to slow down the bond of snow and ice on our roadways. To accomplish this, salt brine (salt and water) is sprayed on the pavement *before* the snow storm begins. This application is typically done 24 – 48 hours ahead of the storm.

This winter the Lake County Engineer's department is beginning our own anti-icing program for SR2 and various county roads. The county is going to use a combination of salt brine and a "beet juice" additive. The additive allows the sprayed material in colder temperatures and is more environmentally friendly.

The County is using an older truck, which was retrofit with a tank and spray bar. We hope to have the system ready by mid-December.

We anticipate this program to save money by using less salt in clearing the county roads. As always, drive safe and steer clear of snowplows.

Healthy Holiday Substitutions

by Becky Hand, Licensed & Registered Dietitian

- Use canned applesauce or plums in cake and pie recipes as a healthier alternative to butter, margarine, or oil.
- When muffin and quick bread recipes call for fat (such as oil), try reducing it by one-third to one-half. You won't even miss it.
- In ice cream desserts, use ice milk or low-fat frozen yogurt.
- Save the fat by using cocoa powder instead of chocolate. Substitute three tablespoons of unsweetened cocoa powder for each ounce of unsweetened chocolate in baked goods such as cakes or cookies. For chocolate fillings, you may need to add one or two teaspoons of oil in addition to the cocoa.
- Replace heavy cream in puddings, cheesecakes, and cream pies with evaporated skim milk.
- Use nonfat yogurt as a substitute for sour cream. Two egg whites can be substituted for each whole egg in many baked recipes.
- Since much of the fat in cake comes from the frosting, try topping cakes with fresh fruit, fruit sauce, or a sprinkle of confectioner's sugar.
- Use Splenda® brand sweetener in place of all or part of the sugar in baked goodies. It works great in pie fillings and puddings too. Follow the baking tips on the box and visit www.splenda.com for ideas.
- Decrease the amount of nuts used in a recipe by half, substituting it with Grape-Nuts® cereal to keep the crunch and texture.
- Reduce the amount of chocolate chips or nuts in a recipe by one-fourth. No one will even notice!
- Use fat-free whipped cream in place of regular whipped cream.
- Substitute skim milk for regular milk.

Healthy CUISINE

We're starting a healthy eating program here at the Lake County Engineer's Office!

This year-long program will take place on the last Tuesday of each month beginning January 29th.

Each month will bring a different themed potluck lunch. All are welcome & invited to participate! This program will be informative and delicious ☺

More details about our kick-off luncheon to follow…

Have you ordered from www.BlueSkyGreenFields.com yet?

If not, check it out. You can order fresh fruits, vegetables, and even snacks.

They offer free delivery to our office each week – it doesn't get much more convenient!

Lake County Solid Waste District Special Collection Events - 2013

Computer Collection ~ April 27, 2013
Scrap Tire Collection ~ May 11, 2013
Household Hazardous Waste Collection ~ June 8, 2013
Household Hazardous Waste Collection ~ September 28, 2013

For more information contact:
The Lake County Solid Waste District at 440-350-2644 or Ohio State University Extension at 440-350-2582.

Fay Road Bridge over Big Creek
Concord Township, north of Palmer

Girdled Road Bridge over Big Creek
Concord Township, near Cascade Road intersection

Fay Road crossing Big Creek
Concord Township, just south of SR 86

Photos courtesy of Kirk Dimmick, P.E., Bridge Engineer

OTEC 2012
Revising the Blueprint by Repealing Ohio's Bridge Inspection Law

The Ohio Transportation Engineering Conference (OTEC) is a two-day conference attended by over 2,800 people from across the United States and Canada. The conference is organized to provide something for everyone interested in Ohio's transportation industry. The program addresses the latest policies and technical information, as well as new ideas in transportation policies, planning, design, construction, maintenance, operation, local government, and management of transportation resources.

Lake County Engineer's very own, Alan Exley, presented at this year's fall conference. Alan's presentation, *A Call for a 2-Year Bridge Inspection Cycle in Ohio*, discussed how repealing Ohio's law requiring annual bridge inspections exceeding the FHWA 2-year inspection cycle can better serve the public and make our bridges safer.

"It is time to repeal the Ohio Law requiring bridges to be inspected every year and return to the Federal Highway Administration's 2-year inspection cycle. After the Minnesota I-35 Bridge collapse, bridge inspection requirements have increased taking more time, effort and cost from government agencies to be compliant. ODOT's adoption of the new Bridge Management System (BMS) program will produce even more bridge information in a manageable form. With the increased effort required, the current continuous cycle of annual bridge inspections produces an excess of unprocessed information. Therefore, it makes sense to direct dollars and effort to managing the bridge assets, using this inspection information in an 'off' year. The public will be better served when bridge condition tracking takes advantage of the new BMS to produce better planned bridge repairs, improvements and replacements."– Alan Exley, P.E., P.S., Chief Design Engineer

A photo gallery from the conference, as well as many of this year's conference presentations can be viewed at:
http://www.dot.state.oh.us/engineering/OTEC/Pages/2012-Presentations.aspx

MAPPING SUPERSTORM SANDY

by Dick Kotapish, GIS Director

On October 31st, I joined ten other members of the State of Ohio All-Hazards Incident Management Team (IMT) en route to Suffolk County, New York - the eastern portion of Long Island. Our team previously deployed to Suffolk County after Hurricane Irene and they invited us back.

The IMT is a group of trained individuals who work together to augment or assist local emergency personnel during ongoing, large and/or complex incidents such as a hurricane. The IMT is deployed as part of the Emergency Management Assistance Compact (EMAC), which is a mutual aid agreement between states and territories of the United States and enables them to share resources during natural and man-made disasters. Our team includes members from Law Enforcement, Fire Services, Emergency Managers and the Health Profession.

Our team was originally assigned to support and fortify the planning function in the Suffolk County Emergency Operations Center (EOC). It quickly expanded to include logistics for the entire county, including debris management. We also assisted Human Service and Human Needs functions.

Suffolk County has about 500 miles of coastline, all of which took a hit from Superstorm Sandy. The interior of the County suffered from downed trees, power outages and gasoline shortages but the extensive damage was chiefly in the coastal areas.

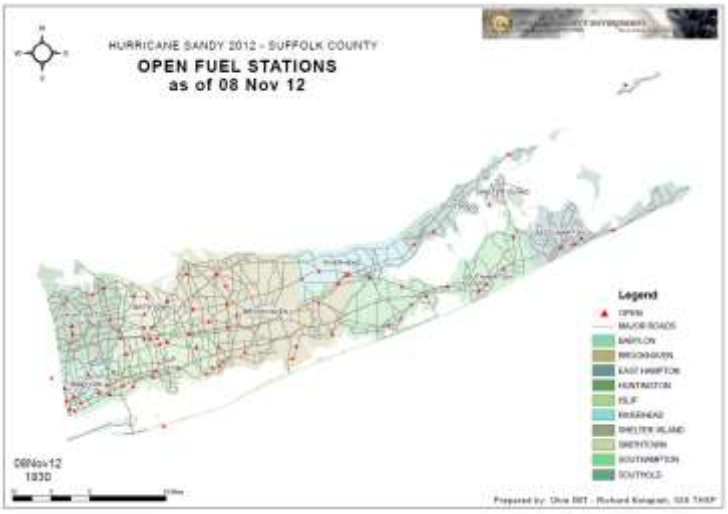
My role as the team's GIS Specialist was to provide various maps to the team, Suffolk County personnel and the general public through their County website. The first map on any deployment is the Situation Map. This shows some of the more basic elements such as where the Local EOCs are located, jurisdictions, hospitals, airfields and major roads. This extra large map is set up in a central location; an acetate overlay is taped to it to allow for adding items of interest that change on a daily basis such as shelter locations and mass feeding sites.

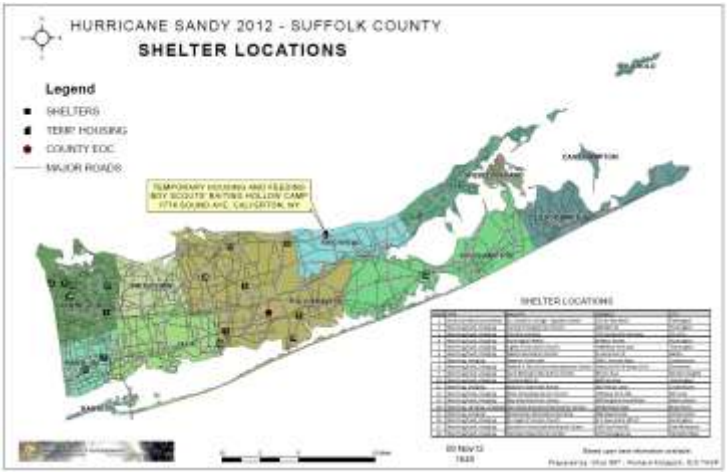
Some of the maps developed included locations of warming shelters and Red Cross shelters, mass feeding locations, storm surge mapping showing what areas were submerged, open gasoline stations, government fuel depots with available fuel levels, and various specialty maps for the NY State Police, FEMA and others. As some of this information was constantly changing, much of my efforts surrounded the daily update of these maps.

We headed back home after clocking 165 hours in two weeks, feeling a sense of accomplishment from helping the overwhelmed in New York and holding genuine appreciation that our homes were lit and our supportive families safe.

Over and Out,

Dick Kotapish, GISP
Ohio IMT GIS Specialist





BENEFITS OF THE GTR RESURFACING IN LAKE COUNTY ARE NOT JUST AT THE SURFACE

by Bruce Landeg, Chief Deputy Engineer

Last spring Blackbrook and Bacon Roads were resurfaced. Nothing special about that headline, except for the unfamiliar GTR acronym in the header. GTR stands for Ground Tire Rubber. If you saw the project signage, you may have guessed that, but the benefits are numerous and bear repeating.

The 2 inch thick surface asphalt course used in this project was made from recycled rubber tires instead of 100% new liquid asphalt binder. The two resurfacings used 240 Tons of GTR modified liquid which required 3,734 discarded car tires.

Roadway Surface Benefit

The project consisted of resurfacing 1.33 miles on two county roads that experience high volumes of truck traffic. The surface is smoother and stays blacker longer which allows heat absorption in winter.

Additional claimed benefits are: increased rut resistance, reduced reflective cracking, and reduced thermal cracking.

Public Relations Benefit

This could be considered the first green project for the department. If the following anecdote is any barometer, the project was hugely successful on the public education front. Traci Salkiewicz, who was involved with the project signage, was attending a local Little League Baseball game. She struck up a conversation with a ten-year old spectator. Out of the blue he initiated the topic of the GTR project by saying, "Did you know that they used over 3000 tires in that new road project?"

Traci was, to say the least, taken aback, and suspected some kind of a staged set-up for this unsolicited comment, but to date we believe it was a genuine encounter with a sharp young man who thinks this recycling idea is so cool that he was telling others what he had learned.

This illustrates two points:

1) Our signage was effective.
2) Public projects can have a strong PR benefit as the number of cars that frequent a project means that, in this case, the general public was also being educated of a positive way to recycle solid waste.

Project Finances Benefit

This project allowed the department to leverage tax payers dollars as follows: The ODNR awarded us a $129,000 grant for this project. We then leveraged this amount as part of our local share in our successful OPWC grant application. This means that instead of the typical 50/50 grant to local share distribution in order to compete for OPWC funding, the Lake County Engineer only committed $141,000 from his budget on a $680,000 project cost estimate.

We will continue to monitor the performance of this project for durability, but Chief Maintenance Engineer, Ted Galuschik is considering this as an alternate on future resurfacing projects.

This is one environmentally friendly project where the rubber meets the road before the traffic does. Who could resist treading on that one?

James R. Gills, P.E., P.S.
LAKE COUNTY ENGINEER

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WE'RE ON THE WEB!

Visit our website...
www.lakecountyohio.gov/engineer

Find us on...

facebook

Lake County, Ohio Engineer's Office

Guides to Pension & Health Care Changes

OPERS eNewsNow Nov. 13, 2012

Substitute Senate Bill 343, recently passed by the Ohio legislature, marks a major milestone for OPERS. Provisions of the law, most of which take effect Jan. 7, 2013, will have an impact on all OPERS members. Current retirees are not impacted by the law's provisions.

Enactment of the provisions enables OPERS to continue offering access to health care coverage for current and future retirees. Health care coverage is not guaranteed by law and will be offered only as long as there is no impact on the pension fund. Despite the funding allowed by pension legislation, OPERS still needed to make changes to the retiree health care program due to longer life expectancy and steadily increasing health care costs. The changes were recently adopted and will impact both current and future retirees beginning in 2014.

By now, you should have received in the mail the Comprehensive Guide to Pension and Health Care Changes. You should have received one of two guides (depending on your current retirement status). You are urged to read the guides carefully. They are designed to serve as a reference tool as you make decisions about your future in retirement.

The guide labeled Current Member Guide explains the changes as they relate specifically to members who have not yet retired. In addition, a chart is included with the guide to help you determine your transition group (A, B, or C) with respect to the implementation of the pension plan changes. The guide labeled Retired Member Guide details the changes specific to retirees with an emphasis on retiree health care.

Visit the Special Coverage section on the home page of www.opers.org for additional resources including:

- Cost of Living Adjustment (COLA) Calculator for future retirees in transition group A
- Health Care Planning Tool that will help retirees and those considering retirement determine health care allowance percentages and estimated premium costs for the next five years
- "Spiking" Calculator to help future retirees see if their benefit will be impacted by the cap on spiking based on their salary
- Online versions of the guide

Again, please review the information carefully. If you have questions after reviewing the information, contact the OPERS Member Services Department at 800-222-7377.

HANDS-ONLY™ CPR

In early November, several Lake County Engineer employees participated in a Hands-Only™ CPR Session presented by the Painesville Township Fire Department.

Employees learned how to respond to emergencies using the Hands-Only™ adult CPR technique and AED equipment.

Special thanks to Lieutenant Frank Huffman and Lieutenant Mike Shoff for providing us with invaluable instruction and to Ed Cunningham for arranging the training.